

**REMARKS/ARGUMENTS**

The Office Action mailed November 3, 2004, has been received and reviewed. Claims 1 through 18 are currently pending in the application. Claims 10 through 18 have been withdrawn as being drawn to a non-elected invention. Claims 1 through 5, and 7 through 9 stand rejected. Claim 6 has been objected to as being dependent upon a rejected base claim, but the indication of allowable subject matter in such claim is noted with appreciation. Applicant has canceled claims 10 through 18, amended claims 2, 5, 6, 7, 8 and 9, added new claims 19 through 22, and respectfully requests reconsideration of the application as amended herein.

In amending the claims, Applicant has amended claim 2 to depend directly from claim 1 and to recite that the solder ball is in direct electrical contact with the bond pad layer and the terminal pad. Applicant has amended claim 6 to depend directly from claim 1. Applicant has amended claim 7 to delete the reference to centroids of the bond pad layer and terminal pad and misalignment thereof, and added the subject matter of claim 6 indicated as allowable by the Examiner in the outstanding Office Action, although not in identical language. Claim 8 has been amended to reference "a" centroid to avoid a potential antecedent basis issue. Claim 9 has been amended to recite a selective configuration of the bond pad layer for solder ball positioning, support for which appears at least at paragraph [0069] of the as-filed specification.

New claims 19 through 21 respectively correspond to claim 2 as amended herein and original claims 3 and 4, but depend from independent claim 7. New claim 22 is similar in subject matter to, but slightly broader than, claim 6, and depends from claim 7.

No new matter has been added.

**35 U.S.C. § 112 Claim Rejections**

Claims 7 through 9 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has amended claims 7 and 9 to render the rejection moot.

### Objections to the Drawings

The Examiner has objected to the drawings as not showing every feature of the invention specified in the claims, in reference to the subject matter of claim 7 prior to the present amendments thereto and, by dependency therefrom, claims 8 and 9. Without acquiescing in the Examiner's position but in the hope of advancing prosecution of the present application, Applicant has amended claims 7 and 9 to delete the subject matter which the Examiner has identified as not being illustrated to overcome this rejection.

### 35 U.S.C. § 102(b) Anticipation Rejections

#### Anticipation Rejection Based on U.S. Patent No. 6,201,305 to Darveaux et al.

Claims 1 through 5, and 7 and 8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Darveaux et al. (U.S. Patent No. 6,201,305). Applicant respectfully traverses this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

With respect to claim 1 and the Darveaux reference, it is noted that the claim recites, in pertinent part, "... a bond pad layer comprising at least another metal layer formed over, *at most*, a portion of the *exposed* portion of the terminal pad..." (emphasis added). In other words, a portion of surface of the terminal pad which is exposed through the aperture in the insulative layer remains *uncovered* by the bond pad layer. FIGS. 1A-1B of the reference and the accompanying text clearly describe that the bond pad layer 28 *completely* covers the portion of the terminal pad 14 exposed through the insulative layer 20. Thus, claim 1 is not anticipated by the reference.

Claim 2 is allowable as depending from claim 1 and, further, as claim 2 now clarifies the electrical contact of the claimed solder ball with the bond pad layer and the terminal pad to be "direct," a feature not described by the reference.

Claims 3 and 4 are allowable as depending from claim 2 and, ultimately, claim 1.

Claim 5 is allowable as presently amended as depending from claim 1 and because the reference fails to disclose a bond pad layer configured as radially extending elements generally symmetrically arranged about an exposed, central portion of the terminal pad.

Claim 7 is allowable as incorporating the subject matter of claim 6, indicated to be allowable in the outstanding Office Action.

Claim 8 is allowable as depending from claim 7.

Anticipation Rejection Based on U.S. Patent No. 5,773,359 to Mitchell et al.

Claims 1 through 5, and 7 and 8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Mitchell et al. (U.S. Patent No. 5,773,359). Applicant respectfully traverses this rejection, as hereinafter set forth.

With respect to claim 1 and the Mitchell reference, it is again noted that the claim recites, in pertinent part, "... a bond pad layer comprising at least another metal layer formed over, *at most*, a portion of the exposed portion of the terminal pad..." (emphasis added). ). In other words, a portion of surface of the terminal pad which is exposed through the aperture in the insulative layer remains *uncovered* by the bond pad layer. Once again, as with Darveaux, the cited portions and drawing figures of the reference clearly show that the bond pad layer 25 (see FIG. 1 of Mitchell) *completely* covers the portion of the terminal pad 23 exposed through an aperture in the insulative layer 24. Thus, claim 1 is not anticipated by the reference.

Claim 2 is allowable as depending from claim 1 and, further, as claim 2 now clarifies the electrical contact of the claimed solder ball with the bond pad layer and the terminal pad to be "direct," a feature not described by the reference.

Claims 3 and 4 are allowable as depending from claim 2 and, ultimately, claim 1.

Claim 5 is allowable as presently amended as depending from claim 1 and because the reference fails to disclose a bond pad layer configured as radially extending elements generally symmetrically arranged about an exposed, central portion of the terminal pad.

Claim 7 is allowable as incorporating the subject matter of claim 6, indicated to be allowable in the outstanding Office Action.

Claim 8 is allowable as depending from claim 7.

**Objection to Claim 6/Allowable Subject Matter**

Claim 6 stands objected to as being dependent upon a rejected base claim, but is indicated to contain allowable subject matter and would be allowable if placed in appropriate independent form. Applicant, as noted above, has incorporated the subject matter of claim 6 into independent claim 7.

**New Claims**

Applicant has added new claims 19 through 22, each of which depends directly or indirectly from claim 7. As noted above, new claims 19 through 21 correspond respectively to claim 2 as amended herein and original claims 3 and 4. New claim 22 is similar in subject matter to, but slightly broader than, claim 6, and depends from claim 7.

**ENTRY OF AMENDMENTS**

The amendments to claims 2, 5, 6, 7, 8 and 9 and new claims 19 through 22 should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application.

**CONCLUSION**

Claims 1 through 9 and 19 through 22 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicant's undersigned attorney.

Respectfully submitted,



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Date: January 31, 2005

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